

UNITED STATES MARINE CORPS
Logistics Operation School
Marine Corps Combat Service Support Schools
PSC Box 24401
Camp Lejeune, North Carolina 28542-0041

LOC 1211

STUDENT OUTLINE

GROUND SAFETY

LEARNING OBJECTIVES

1. **Terminal Learning Objective:** Given the requirement to maintain a unit ground safety program and the references, maintain a ground safety program, to ensure procedures are implemented to minimize mishaps. (0402.01.05)

2. **Enabling Learning Objective(s):**

a. Given the references, a written test, and a requirement to maintain a ground safety program, identify the responsibilities of the safety manager to prevent mishaps, per the references. (0402.01.05a)

b. Given the references, a written test, and a requirement to maintain a ground safety program, identify the requirements for safety related programs, per the references. (0402.01.05b)

c. Given the references, a written test, and a requirement to maintain a ground safety program, identify potential hazards, per the references. (0402.01.05c)

d. Given the references, a written test, and a requirement to maintain a ground safety program, develop an operational risk management (ORM) matrix, per the references. (0402.01.05e)

e. Given the references, a written test, and a requirement to maintain a ground safety program, identify the requirements for mishap reporting and recording, per the references. (0402.01.05f)

f. Given the references, a written test, and a requirement to maintain a ground safety program, prepare a ground safety mishap report, per the references. (0402.01.05g)

g. Given the references, a written test, and a requirement to maintain a ground safety program, identify safety training requirements of personnel for the prevention of mishaps, per the references. (0402.01.05h)

MARINE CORPS SAFETY PROGRAM

1. **Mission.** The mission of the safety program is to enhance the warfighting capability by minimizing personnel and material losses through the use of a systematic and progressive program of continuous hazard identification and risk reduction.

2. Responsibilities

a. Safety is an inherent responsibility of command and implementation of all aspects of the Marine Corps Safety Program through the chain of command is mandatory.

(1) "Commanders have overall responsibility for compliance with Marine Corps Occupational Safety and Health (OSH) standards, MCO P5100.8F. They must implement an all-encompassing command safety program, to include tenants under their purview. They also need to prescribe and enforce additional safety requirements for local conditions" (MCO P5100.8F pg 2-6)

(2) Safety managers shall:

(a) Execute administrative details of the safety program.

(b) Adapt safety directives, regulations, and suggestions from higher authority for local conditions.

(c) Maintain complete mishap reports and make a comprehensive analysis of all mishaps.

(d) Ensure workplace safety inspections are conducted on a periodic basis.

- (e) Advise commander on safety matters.
- (f) Coordinate and consult with activity officials on safety matters.
- (g) Program and budget for corrections of safety and health deficiencies.
- (h) Establish liaison with local, municipal, state, and federal safety agencies, as appropriate.
- (i) Organize, provide technical assistance to, and act as recorder of command safety councils.
- (j) Provide safety representation on activity or unit committees and boards.
- (k) Review suggestions pertaining to safety devices and practices and submit recommendations to the awards committee.
- (l) Study safety problems and develop remedial safety measures.
- (m) Organize, implement, and supervise a motor vehicle safety program for both government and private motor vehicle operation.
- (n) Oversee explosives and range safety programs.
- (o) Provide safety education to supervisors, collateral duty safety managers, and their assistants in subordinate units.
- (p) Initiate actions to stimulate interest in safety.
- (q) Keep the commander informed of any safety problems.

3. Safety Related Programs. The Marine Corps has conducted safety and health programs for many years. Historically, occupational safety (industrial type safety) has been an element of the overall Marine Corps safety program managed by Marine Corps command functions. Other elements of the safety program include aviation, ground, traffic (motor

vehicle), explosives, fire protection, system safety, industrial hygiene, recreational, off-duty, and radiation safety (ionizing, laser, and radio frequency). The Navy Bureau of Medicine and Surgery (BUMED) provides the occupational health program element.

4. Background:

a. Occupational safety and health (OSH) program gained special attention after passage of Public Law 91-596 on 31 December 1970. This law is also known as Occupational Safety and Health Act (OSH Act). Although directed at private sector employers, Section 19 of OSH Act required Federal agencies to establish and maintain comprehensive and effective OSH programs consistent with standards promulgated under Section 6 of OSH Act.

b. Occupational Safety and Health Administration (OSHA), Department of Labor regulations on federal employee. Occupational safety and health programs, that applies to all federal (Military and Civilian Personnel). 29 CFR 1960 covers:

- (1) Supervisor and employee responsibilities.
- (2) Compliance with OSHA standards.
- (3) Inspection and abatement procedures.
- (4) Training of all personnel.
- (5) Record keeping and reporting requirements.
- (6) Evaluation of federal OSH program.
- (7) Field federal safety and health councils.

c. Title 5, United States code, Section 7902 "Safety Programs." Directs safety programs for federal employees.

d. Executive Order 12196, "Occupational Safety and Health Programs for Federal Employees," 26 February 1980. Directs the military to comply with the OSH Act.

5. Marine Corps Occupational Safety And Health (OSH) Policy. "All Marine Corps commands shall provide a safe and healthful workplace for all personnel. These conditions

shall be ensured through an aggressive and comprehensive OSH program implemented through the appropriate chain of command." (MCO P5800.8F pg 1-4)

6. Ground Safety:

a. The commander is responsible for the prevention of mishaps involving personnel, equipment, or property in their charge. These mishaps result in burdensome costs for personnel, equipment, workers' compensation and civil claims against the Marine Corps. Reduced mission readiness has a negative impact on public relations.

b. To assist commanders with their safety responsibilities, Marine Corps installations shall provide the following safety support on request:

- (1) Safety Training.
- (2) Safety Inspections.
- (3) Safety Education Material.
- (4) Personal Protection Equipment.
- (5) Reports and Investigations.

7. Definitions.

a. Mishap: An unplanned event, or series of events, which may result in one or more of the following:

- (1) Fatality/injury to Marine Corps active duty personnel on or off duty.
- (2) Fatality/injury to Marine Corps reserve personnel.
- (3) Fatality/injury to on-duty Marine Corps civilian personnel.
- (4) Fatality/injury to non-Marine Corps personnel as a result of Marine Corps Operations.
- (5) Occupational illness to Marine Corps personnel.

(6) Occupational illness to non-Marine Corps personnel as a result of Marine Corps operations.

(7) Damage to Marine Corps property or equipment.

(8) Damage to non-Marine Corps property as result of Marine Corps operations tactical or administrative.

b. Lost Time Case. A nonfatal injury that causes any loss of time from work after the day or shift on which it occurred; or a nonfatal occupational illness that causes loss of time from work or disability.

c. Lost Work Days. The total number of full days, consecutive or not, that a person was unable to work as a result of an injury or occupational illness.

(1) For military personnel this includes days hospitalized, sick-in-quarters or on convalescent leave as a result of an injury or occupational illness.

(2) Marine Corps Reserve personnel in a not physically qualified (NPQ) status sustained as a result of an injury at any time en route to, during, or returning from drill, or during annual training is considered lost time.

(3) For civilian personnel this includes continuation of paid leave, annual leave, sick leave, days hospitalized, and leave without pay granted, or a full work shift missed because of an injury or occupational illness.

d. On-Duty. Marine Corps personnel are on duty when they are:

(1) Physically present at any location to perform their official assigned work. This includes those activities normally associated with work, such as walking to and from parking lots, lunch periods, rest breaks, and all activities aboard military vessels.

(2) Being transported by GMV (government motor vehicle) or commercial vehicle for purpose of performing officially assigned work. This includes travel in PMV (private motor vehicle), or commercial conveyance while performing official duty, but not routine travel to and

from work.

(3) Participation in compulsory sports or physical training activities.

(4) Participation in installation-sponsored, command-sponsored, or MCCS sponsored sports or activities during normal work hours as a member of the military unit team.

(5) TAD personnel, away from their regular place of employment are covered 24 hours a day for any injury that results from activities essential or incidental to the temporary assignment.

(6) Marine and Navy personnel are on duty when performing individual PT anytime after reaching their appointed place of duty.

e. Off-Duty. Whether on or off a DOD installation, Marine Corps personnel are off-duty when they:

(1) Are on leave, liberty, or Permissive TAD.

(2) Are engaged in personal activities unrelated to employment such as eating, physical training, resting, shopping, running errands, etc.

f. Mishap Classes:

(1) Class A: Mishap resulting in a fatality or permanent total disability, or total reportable damage of \$1 million or more.

(2) Class B: A Mishap resulting in permanent partial disability, inpatient hospitalization (admitted for reasons other than observation) of three or more personnel, or total reportable damage of \$200,000 or more, but less than \$1 Million.

(3) Class C: A mishap resulting in a lost time case or where total reportable damage is \$20,000 or more, but less than \$200,000

(4) Class D: A mishap result in no lost time case or first aid case, or total reportable damages of at least \$2,000 but less than \$20,000 and no lost time.

g. Hazard. A potential cause for damage or injury.

8. Potential Hazard:

a. Hazard Alerts are a means for commanders' to convey hazard information to other commanders for mishap prevention purposes. The procedures contained in MCO 5100.8F series regarding "Report of Unsafe or unhealthful working conditions" and "correction of Hazardous Condition"; they complement each other.

b. Hazard Identification & Assessment: The identification of hazards before a mishap occurs can be accomplished in a number of ways such as: analysis of mishap data, observation and investigation of near mishaps, reports of unsafe acts or hazards by personnel, safety inspection, or the review of standard operating procedures (SOPs) and operations. A hazard is assessed according to mishap probability of occurrence and severity of damage or injury and assigned a Risk Assessment Code (RAC).

9. Operational Risk Management (ORM). The process of dealing with risk associated within military operations, which includes risk assessment, risk decision making and implementation of effective risk controls.

a. It is a decision making tool used by people at all levels to increase operational effectiveness by anticipating hazards and reducing the potential for loss, there by increasing the probability of a successful mission.

b. It increases our ability to make informed decisions by providing the best baseline of knowledge and experience available.

c. It minimizes risks to acceptable levels, commensurate with mission accomplishment. The amount of risk we will take in war is much greater than that we should be willing to take in peace, but the process is the same. Applying the Operational Risk Management process will reduce mishaps, lower costs, and provide for more efficient use of resources. The following five-step sequence, with three levels of application that represents a logical thought process for planners to follow:

(1) Identify Hazards. Begin with an outline or chart of the major steps in the operation (operational analysis). Next, conduct a Preliminary Hazard Analysis by listing all of the hazards associated with each step in the operational analysis along with possible causes for those hazards.

(2) Assess Hazards. For each hazard identified, determine the associated degree of risk in terms of probability and severity. Although not required, the use of a matrix may be helpful in assessing hazards.

(3) Make Risk Decisions. First, develop risk control options. Start with the most serious risk first and select controls that will reduce the risk to a minimum consistent with mission accomplishment. With selected controls in place, decide if the benefit of the operation outweighs the risk. If risk outweighs benefit or if assistance is required to implement controls, communicate with higher authority in the chain of command.

(4) Implement Controls. The following measures can be used to eliminate hazards or reduce the degree of risk.

(a) Administrative Controls - Controls that reduce risks through specific administrative actions, such as:

1 Providing suitable warnings, markings, placards, signs, and notices.

2 Establishing written policies, programs, instructions and SOPs.

3 Training personnel to recognize hazards and take appropriate precautionary measures.

4 Limiting the exposure to a hazard (either by reducing the number of personnel/assets or the length of time they are exposed).

(b) Engineering Controls. Controls that use engineering methods to reduce risks by design, material selection or substitution when technically or economically feasible.

(c) Personal Protective Equipment. Serves as a barrier between personnel and a hazard. It should be used when other controls do not reduce the hazard to an acceptable level.

(5) Supervise. Conduct follow-up evaluations of the controls to ensure they remain in place and have the desired effect. Monitor for changes, which may require further Operational Risk Management. Take corrective action when necessary.

10. ORM Process Levels. The ORM process exists on three levels. The Commander selects which level based upon the mission, the situation, the time available, the proficiency level of personnel and the assets available. One of the objectives of ORM training is to develop sufficient proficiency in applying the process such that ORM becomes an automatic or intuitive part of our decision-making methodology. In the operational environment, leaders should be able to employ this time-critical process to make sounds and timely decisions that generate tempo and facilitate decisive results. The three levels are as follows:

a. Time-critical - An "on the run" mental or oral review of the situation using the five step process without recording the information on paper. It is particularly helpful in choosing the appropriate course of action when an unplanned event occurs during the execution of a planned operation of daily routine.

b. Deliberate - Application of the complete five-step process. It uses brainstorming and experience to identify hazards and develop controls, and is therefore most effective when done in a group. Examples include planning of upcoming operations and review of standard operating, maintenance or training procedures.

c. In-Depth - Deliberate process with a more thorough risk assessment (first two of the five steps) involving research of available data, use of diagram and analysis tools, formal testing or long term tracking of the hazards associated with the operation to identify and assess the hazards. Examples include long term planning of complex operations and the introduction of new equipment.

11. Mishap Reporting and Recording

a. Recordable Mishap. All mishaps that require medical treatment beyond first aid are recordable, with the exception of Non-Reportable Mishaps as described in paragraph 2005 of MCO P5102.1A.

b. Reportable Mishaps. The following mishaps are reportable via naval message within 30 days of mishap in a Safety Investigation Report (SAFEREP) to Commandant of the Marine Corps, Safety Division (CMC (SD)):

(1) Mishaps requiring a Safety Investigation Board (SIB):

(a) Class A and B mishaps that occur on duty, on or off duty on base, or on or off base while performing official duties.

(b) A Marine Corps operational mishap involving explosives, explosive devices, direct or indirect fire weapons, pyrotechnics, incendiary devices, or combat chemical agents that result in injury or Class D property damage.

(c) All on duty mishaps that require the in-patient hospitalization of three or more people, regardless of the extent of injury or damage.

(2) Mishaps not requiring a SIB but still require and investigation:

(a) Class A and B that occur off duty and off base.

12. Mishap Forms

a. Mishap Logs. All mishaps must be recorded in unit mishap logs within six working days from notification of occurrence. Mishap logs shall be maintained for five years. A monthly mishap log report shall be sent electronically to COMNAVSAFECEN, no later than the 10th day from the last day of the reported month. All mishaps are reported through the monthly mishap logs reports.

b. Mishap Summary. Consolidated report at the component commanders (COMMARFORLANT, COMMARFORPAC, COMMARFORRES) or at the highest level of command and submit to CMC (SD).

Mishap summaries are to be posted and due to CMC (SD) NLT twenty days after the end of the fiscal year. Mishap summaries will remain posted for 30 consecutive days.

c. SAFEREP. Must be submitted via a naval message within 30 days of mishap for all reportable mishaps listed above. SAFEREPs are privileged and designated "For Official Use Only" (FOUO). SAFEREPs shall neither include any part of, nor refer to, the corresponding Judge Advocate General Manual (JAGMAN) investigation. MCO P5102.1A section 4 gives instructions on preparing the SAFEREP.

d. Special Report. Notify CMC (SD) within 8 hours by telephone or electronic means (Personal Casualty Report (CPR), Serious Incident Report (SIR), or Operational Report-3 (OPREP-3)) for mishaps resulting in either a fatality or the inpatient hospitalization of three or more personnel.

Note: Safety investigations are to be conducted separate from and independent of any JAG investigations. Individuals conducting or assisting in a safety investigation or assigned to a safety billet, shall neither assist nor be assigned to conduct any JAG investigation.

13. Training

a. Safety Manager's training must be completed no later than 90 days after appointment per U.S. Marine Corps Safety Campaign Plan 2002. These individuals shall attend the 80 hour Ground Safety for Marines course or a training course approved by COMMARFORFAC, COMMARFORLANT, COMMARFORRES, or CG Marine Corps Combat Development Command (MCCDC).

b. Job Safety Training. Before beginning work, newly assigned personnel will be given job safety training. This training is conducted and documented by the individual's work section. As a minimum, the training will consist of: general safety matters related to the work environment; hazards associated with assigned tasks; applicable safety and health standards; PPE required for each task; an overview of local safety and health programs with emphasis on individual rights and responsibilities; prompt reporting to management of unsafe conditions, potential exposure to hazardous materials, or occupational injury or illness; and any additional specialized safety and health training the

person is required to attend and a date and time schedule of applicable training sessions.

c. Specialized Safety and Health Training. When newly assigned personnel, or other workers, are involved in work environments, processes or tasks exposing them to hazardous conditions, they will receive applicable specialized safety and health training. References 5-4 and 5-5 of the MCO 4450.12 contain many specialized safety and health training requirements. Supervisors are responsible for providing or obtaining job unique safety training. Some training may be available from local safety, occupational health, or preventive medicine personnel. Documentation of this training is maintained by the person's work section supervisor. Some safety and health training programs or areas that may apply are:

- (1) Asbestos
- (2) Ergonomics/Back Injury Prevention
- (3) Fall Protection
- (4) Hazard Communication Program
- (5) Hearing Conservation

NOTE: This list is not all-inclusive and each item does not apply to every person. Therefore, supervisors must determine the safety training each person will receive based on a job hazard analysis, industrial hygiene survey, or both.

REFERENCES:

1. MCO 5100.8F, USMC Occupational Safety and Health (OSH) Program, applies to all United States Marine Corps activities and personnel to include military, civil service and non-appropriated fund (MCCS) civilians.

2. MCO 5100.29, Marine Corps Safety Program, Provides policy, assigns responsibility, and establishes instructions for the administration of the Marine Corps Safety Program.

3. MCO P5102.1A, Marine Corps Ground Mishap Reporting

4. MCO 5100.19, USMC Traffic Safety Program
5. MCO 4450-12, Storage and Handling of Hazardous Materials
6. MCO 3500.27A, Operational Risk Management
7. MCO 6260.1E, Marine Corps Hearing Conservation Program.
8. MCO P11262.2, Inspection, Testing and Certification of Tactical Ground Load Lifting Equipment
9. United States Marine Corps Safety Campaign Plan 2002
10. 29 CFR 1910: Department of Labor (DOL) General industry standards, covers Federal guidelines for the general industry to include civilian and military personnel on various subjects such as hearing, asbestos, lead, hazardous materials, etc.